

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property
Organization
International Bureau



(43) International Publication Date
20 January 2005 (20.01.2005)

PCT

(10) International Publication Number
WO 2005/004787 A1

(51) International Patent Classification⁷: A61J 7/04, 7/02

(21) International Application Number:
PCT/EP2004/007998

(22) International Filing Date: 9 July 2004 (09.07.2004)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
0316355.7 11 July 2003 (11.07.2003) GB

(71) Applicant (for all designated States except US): **GLAXO GROUP LIMITED** [GB/GB]; Glaxo Wellcome House, Berkeley Avenue, Greenford Middlesex UB6 0NN (GB).

(72) Inventors; and

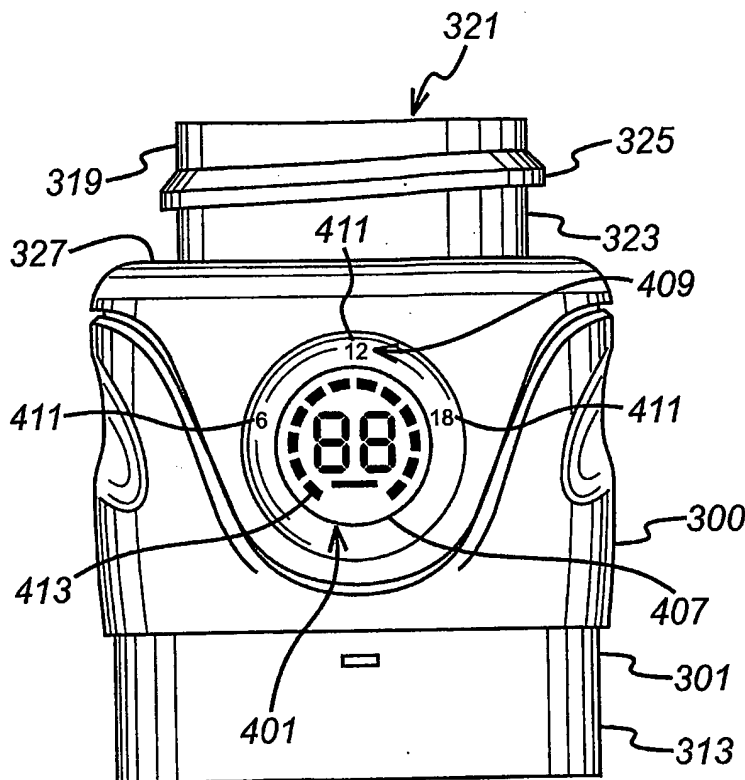
(75) Inventors/Applicants (for US only): **ANDERSON, Gregor, John, McLennan** [GB/GB]; GlaxoSmithKline, Park

Road, Ware Hertfordshire SG12 0DP (GB). **COLLINS, James, Terence** [GB/GB]; Origin Product Design Limited, Unit 1, Broughton Craft Centre, Causeway Road,, Broughton, Huntingdon Cambridgeshire PE28 3AS (GB). **LAMBLE, Ralph, George** [GB/GB]; Origin Product Design Limited, Unit 1, Broughton Craft Centre, Causeway Road, Broughton, Huntingdon Cambridgeshire PE28 3AS (GB). **PEARSON, Allen, John** [GB/GB]; Origin Product Design Limited, Unit 1, Broughton Craft Centre, Causeway Road, Broughton, Huntingdon Cambridgeshire PE28 3AS (GB). **SNOW, Tom** [GB/GB]; Origin Product Design Limited, Unit 1, Broughton Craft Centre, Causeway Road, Broughton, Huntingdon Cambridgeshire PE28 3AS (GB). **TURNER, Paul, John** [GB/GB]; Origin Product Design Limited, Unit 1, Broughton Craft Centre, Causeway Road, Broughton, Huntingdon Cambridgeshire PE28 3AS (GB).

(74) Agent: **KONDO, Rie**; GlaxoSmithKline, Corporate Intellectual Property, 980 Great West Road, Brentford Middlesex TW8 9GS (GB).

[Continued on next page]

(54) Title: A DISPENSER



(57) Abstract: A hand-held dispenser (1) for dispensing a multiplicity of unit products (3) having a storage area (100) for storing the unit products, an outlet opening (311) through which the unit products are dispensable from the dispenser, a dispensing mechanism (350) actuable to dispense the unit products through the outlet opening, and a timing mechanism (409, 411, 413) adapted in use to time the period since last dispensing of a unit product.

WO 2005/004787 A1



(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

— with international search report

(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH,

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.